UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

	ORDER	
Defendants.)	
)	
)	
CITY OF CHICAGO, et al.)	
)	Judge Edmond E. Chang
v.)	
)	
Plaintiff,)	No. 1:18-CV-2624
)	
ADAM GRAY,)	

This Order explains the expert-testimony decisions, previously posted as R. 489, under Federal Rule of Evidence.

I. Legal Standard

Rule 702 appoints district courts as gatekeepers of proposed expert testimony. Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 147 (1999); Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 589 (1993). Rule 702 requires first that the proposed witness be qualified to offer opinion testimony based on "knowledge, skill, experience, training, or education" in the pertinent field. Fed. R. Evid. 702. In assessing the admissibility of expert testimony, the district court must engage in a three-step analysis, with qualifications serving as just the first step. See Gopalratnam v. Hewlett-Packard Co., 877 F.3d 771, 779 (7th Cir. 2017). The district court "must determine whether the witness is qualified; whether the expert's methodology is scientifically reliable; and whether the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue." Id. So, even if a witness qualifies as an expert, the district court must still ensure that the testimony is relevant and that it passes the requirement of reliability. Mihailovich v. Laatsch, 359 F.3d 892, 918 (7th Cir. 2004).

On the reliability requirement, Rule 702 requires that the testimony be "based on sufficient facts or data"; be "the product of reliable principles and methods"; and

that the expert has "reliably applied the principles and methods to the facts of the case." Fed. R. Evid. 702. To make this determination, the district court must "scrutinize proposed expert witness testimony to determine if it has the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Lapsley v. Xtek, Inc.*, 689 F.3d 802, 805 (7th Cir. 2012) (cleaned up).¹

II. Analysis

A. Court Sandau and Miriam Rafailovich

Gray objects to defense expert Court Sandau, a scientist who performed experiments with detecting gasoline on milk containers. By way of brief background, the parties agree that the chromatograms developed by technician Murry Shambee in the aftermath of the fire, which tested the fire debris and the milk jug found at the scene, did not show the presence of gasoline on the milk jug. The defense asked Sandau to test whether it would be possible for gasoline to go undetected on the milk container. He conducted a series of experiments in which he placed gasoline in milk containers and then squished them flat (to mimic the shape of the original milk jug). Kerosene and diesel were wiped on the sides and then the samples were cut up and placed them under a fume hood for 24 hours at room temperature. R. 329-2, Sandau Report at 21-24.2 He then used gas chromatography with varying parameters for the experimental conditions (extraction time, heating temperature, and gas flow rate) to analyze the pieces. Id. at 24. Sandau concluded that by varying the values of these experimental parameters within the acceptable ranges allowed by the American Society for Testing and Materials (ASTM), it was possible to generate results that did not detect gasoline in the samples—specifically when a high extraction temperature and high flow rate, or a short extraction time, were employed. *Id.* at 24–40.

Gray also objects to defense expert Miriam Rafailovich, a scientist who conducted additional experiments on milk containers. She soaked cut-up pieces of milk jugs in gasoline for 24 hours and then left them to dry for 24 hours under a fume hood, at which time she placed them into vials containing the solvent acetonitrile and then tested them using gas chromatography-mass spectrometer. In a second set of experiments, Rafailovich drove over gasoline-soaked milk containers with a car and

¹This Order uses (cleaned up) to indicate that internal quotation marks, alterations, and citations have been omitted from quotations. See Jack Metzler, Cleaning Up Quotations, 18 Journal of Appellate Practice and Process 143 (2017)

²Citations to the record are "R." followed by the docket entry number and, if needed, a page or paragraph number.

then put them under a fume hood at room temperature to dry before placing them into vials filled with acetonitrile and analyzing them using gas chromatography-mass spectrometer (this instrument is distinct from a gas chromatograph, the method used by Shambee). R. 329-4, Rafailovich Report at 3–6. The first experiments were performed "to determine how long after the samples were exposed to air, one could still detect gasoline residue" and the other set was performed to see "if other compounds could be detected after exposure to gasoline" and whether gasoline would react with a substance like polyethylene from the container. *Id.* at 3.

Rafailovich concluded that the intensity of the peaks that she observed associated with gasoline decreased by half after the milk container samples air dried for one hour, decreased by 85% after drying for eight hours, and were undetectable after air drying for 24 hours. She opined that Shambee's original findings were insufficient to reliably exclude the presence of gasoline. *Id.* at 6. She also concluded that there was no reaction between gasoline and polyethylene in milk containers. *Id.* at 5.

Gray first objects to the experts' qualifications, but both experts are qualified to opine on the respective topics given their education and training. R. 329-3, Rafailovich Biographical Sketch; R. 329-1; Sandau Dep. at 5–12. The more damning problem is whether the experts deployed their expertise in a way that would be helpful to the jury. When offering experiments for the jury's consideration as a relevant comparison to an earlier test, it is important that the experiments be conducted under "substantially the same conditions" as the original one, *Krik v. Crane Co.*, 71 F. Supp. 3d 784, 791 (N.D. Ill. 2014) (cleaned up), that is, similar enough to shed light on the original test.

It is true that "similar" need not be exact. Gray complains that the experts' experiments are essentially speculative versions of what might have happened in the original test. But the defense is correct (at least in part) that an expert may offer testimony explaining that testing procedures used in criminal investigations are not necessarily uniform in every jot and tittle. Jurors, who are not experts in forensic or scientific laboratory methods, might mistakenly believe that when a test is performed, it will always yield the same result. So, in theory at least, new experiments performed within different ranges of acceptable parameters—as Sandau purported to do with performing gas chromatography on his samples at different values within the acceptable ASTM ranges—indeed can help shed light on how the procedures (and results) may vary when performed. Also, new experiments can show why tests might not detect the presence of a substance even if it is known that the substance had been

present on the tested object. This is akin to experts who explain that fingerprint testing has its limits.

Having said all that, when a party offers comparative experiments or models, the new experiment does have to be similar enough to the original test to provide an actually helpful comparison point to the case at hand. *See, e.g., Guillory v. Domtar Indus. Inc.*, 95 F.3d 1320, 1331 (5th Cir. 1996) (affirming district court's exclusion of expert testimony where model used by expert "was not sufficiently similar" to the circumstances of the original incident, concluding that "because the model involved highly technical information and because Dr. Reed's model differed in several respects ... [it would] confuse the jury").³

Critically, the Defendants offer no substantive response to Gray's argument that placing gasoline-soaked milk containers under a fume hood for up to 24 hours at room temperature—which both Sandau and Rafailovich did in their experiments—before conducting their analyses is dissimilar in key ways from the state of the original samples and what Shambee did in performing the original test. R. 311, Mot. Bar Sandau and Rafailovich at 7; R. 339, Sandau and Rafailovich Resp. at 2–3. Conditions that *increase* the rate of gasoline evaporation in the new experiments as compared the original experiment poses a relevancy problem, because the purpose of the new experiments is to show that gasoline might have gone undetected in Shambee's test. If the new experiments were conducted in conditions that promoted evaporation of the gasoline, then the new results would be confounded by the faster evaporation.

The original milk jug was found around 8 hours after the fire in an alley when the outside temperature was 34–39 °F, and the jug was then placed in a sealed paint can. R. 270, Pl. Resp. Def. Statement of Facts (DSOF) at 88–89. At colder temperatures, evaporation of gasoline would be slower compared to the higher room temperature of the proposed experts' experiments. R. 266-8, Lentini Dep. at 81. And when

³Although the defense insists that questions of reliability are left for cross-examination and ultimately to the jury, Mot. Bar Sandau and Rafailovich at 6–7, this breaks down when the fit between the new experiment and the original test is so weak that Rule 702 bars its introduction. As the Fifth Circuit explained in *Guillory*, "[n]ormally, the truth regarding differences in models and demonstrations surfaces with vigorous cross-examination; however, where technical information is involved, it is easier for the jury to get lost in the labyrinth of concepts." 95 F.3d at 1331. In those situations, the court reasoned, the jury "could easily miss subtle distinctions revealed on cross-examination," especially in that instance where the evidence would have been "presented in a format resembling a recreation of the event that caused the accident." *Id*.

placed under a fume hood creating a consistent vacuuming of air around the specimen, evaporation also would increase due to the constant airflow. *Id.* Yet Sandau's and Rafailovich's experiments were both performed at room temperature and after 24 hours of being placed under a fume hood that constantly pulled air around the milk container up into the hood. Sandau Report at 21–24; Rafailovich Report at 3–5. Neither expert (nor the defense response brief) pointed to any scientific basis to refute the dissimilarity in evaporation rate. Indeed, in Sandau's deposition, he conceded that his goal was not to emulate conditions similar to Shambee's testing, but rather to demonstrate just *generally* when gasoline may go undetected, untethered from the conditions of the original milk jug's recovery. *See* Sandau Dep. at 136–140.⁴ As the proponent of the expert evidence, it was up to the defense to point to record evidence to refute the importance of the dissimilarity, and the defense failed to do so. The proposed testimony of Sandau and Rafailovich is excluded.

B. Edward Nordskog

The defense offers Edward Nordskog as a proposed arson expert under Rule 702 to rebut the opinions of Gray's arson-investigations expert, Denny Smith. Gray challenges a subset of Nordskog's opinions in which he offers a purported arsonist "profile" and concludes that Gray fits the profile for an arsonist based on circumstances like the time of day that the fire happened, the "target" that was selected, the alleged method of operation, emotional motivations (like anger), and the presence of so-called "anti-forensics behavior," which as far as the Court can tell amounts to routine activities like someone washing his hands. Nordskog Report at 15–21.5

⁴In addition to these defects of disanalogous temperature and airflow parameters, it is also worth noting that Sandau's testing methods themselves—performing extractions with unusually high or low extraction rates or temperatures—also differed from Shambee's testing. Shambee acknowledged that laboratory procedures would be performed under parameters to maximize visibility of gasoline in the testing, not under extreme parameters simply because they were in the acceptable ASTM range. Sandau contended that busy crime labs might nevertheless perform suboptimal tests to move through more sample. Sandau Dep. at 140–150. Although that is possible, this dissimilarity also weakened the probative value of the proposed evidence

⁵Gray has filed a motion targeting additional opinions offered by Nordskog given what Gray believes are agreements to aspect of Denny Smith's testimony and other problems in Nordskog's opinions. R. 502. The motion will be discussed at the end of an upcoming trial day. It is worth noting that the opinions of Nordskog that cover some aspects of Smith's testimony, such as the utility of hydrocarbon detectors, is not objectionable even if there is general agreement on the topic. The defense is entitled to *elaborate* on what Smith testified about to emphasize the points that the defense wishes to present.

It is true, as the defense argues, that there are experts who may, based on practical experience, helpfully explain to the jury certain techniques engaged in by criminals that the jury would not otherwise understand or know about—things like the intricacies of drug trafficking or the pathology of sex offenders. *See, e.g., United States v. Foster*, 939 F.2d 445, 451–52 (7th Cir. 1991). In those cases, many jurors are not generally aware of those techniques, so experts may offer helpful explanations based on experience. That is a far cry from Nordskog's opinions here. Nordskog purports to offer an arsonist profile in a very general way. But the opinions are nothing more than common sense dressed up as expert opinion. Indeed, many of Nordskog's "findings"—like committing the crime at certain times of the day, reacting to an emotional response, or washing hands—are not even unique to arsons. The arsonist-profile evidence is excluded.

D. Barry Feld

The defense offers the expert testimony of Barry Feld, a sociology professor, to rebut the opinions of Gray's expert, Melissa Russano. Gray challenges a subset of Feld's opinions: (1) testimony on the "legal framework" for an adolescent's *Miranda* rights waiver; and (2) the conclusion that Gray understood his *Miranda* rights and "made a knowing, intelligent, and voluntary waiver." R. 327-2, Feld Report at 6–12, 37.

On the legal framework of *Miranda* waivers, Gray is correct that principles of law—like what factors the jury should consider in determining voluntariness—will be provided by the Court in jury instructions. The defense says that the information is necessary background, R. 327 Feld Resp. at 7, but there is no need to frame the testimony as dictated by legal principles rather than fitting the testimony in undisputed principles like what the *Miranda* rights are (the right to counsel, the right against self-incrimination, and so on), and then how Gray had the cognitive ability to understand them.

On the second challenged opinion—that Gray made a knowing waiver of his *Miranda* rights—the defense explains that Feld will not actually testify that Gray understood and voluntarily waived *Miranda*. Rather, Feld will testify that Gray "possessed the cognitive ability to understandably make such a waiver." R. 327, Feld Resp. at 6. That is permissible (though there is reason to question whether Feld's report offered that more modest opinion as distinct from outright saying that Gray

knowingly and voluntarily waived *Miranda*, *see* Feld Report at 37). So the motion is granted in part and denied in part.

E. Marcia Slomowitz

The defense offers Marcia Slomowitz as an expert to testify on Gray's relationship with his family and with Kasey Paris. Specifically, Slomowitz opines that (1) Gray did not suffer or feel despondent when he was lied to about his family's presence at the police station because his family had a fraught relationship with him; (2) because Gray was intelligent, he would not have been coerced into giving a false confession; and (3) Gray was manipulating Paris as demonstrated by their complicated relationship, his later suicidal behavior, and he manipulated the Defendants during the interrogation. R. 315-1, Slomowitz Report at 6–10.

Gray argues that Slomowitz is unqualified to offer these opinions; the findings are unreliable and untethered from any professional methodology; and the opinions are speculative in drawing conclusions about how Gray and his family was thinking, feeling, and acting at different times. R. 315, Mot. Bar Slomowitz at 1–2. The defense respond that Slomowitz is permissibly presenting a psychological profile of Gray at the time of his arrest and interrogation to rebut the claim that he was vulnerable to the police's actions during this time. R. 331, Slomowitz Resp. at 2–3. Also, the defense argues that Slomowitz's methodology of analyzing medical evidence, testimony, and factually relevant documents is an acceptable methodology for medical experts. *Id.* at 5–7. To the defense's way of thinking, Slomowitz's opinions are grounded in clear reasoning based on events from his life. *Id.* at 7–10.

The challenged opinions do not survive Rule 702. At bottom, Slomowitz's report selects a subset of events from Gray's early life—from his middle school grades and time spent at his friend's house to scattered memories of family abuse—and purports to leap to general-profile conclusions that Gray was "manipulative," R. 315-1 at 9, inoculated against interrogation tactics, and unaffected by things that he himself expressed to be hurt by (such as the lie that his mother and brother did not arrive at the station). None of these opinions actually derive from the application of some type of scientific knowledge.

Rather, what Slomowitz engages in is more akin to the kind of pseudo-profilers that might be used during an investigation phase—but not as evidence in court with the Rule 702 gate in place. This is unlike experts that may provide profiles of

dynamics that a jury might be unfamiliar with—like profiles of sexual abusers or techniques of drug traffickers, which are based on a series of sustained, practical experiences. Here, Slomowitz instead purports to opine on Gray based on a smattering of life events, and then leaps to conclusions about his "manipulative" behavior (as if there were a consensus scientific definition of that adjective) and resistance to police interrogations. This is not scientific in any way. Indeed, the Defendants fail to point to other cases where profilers of this kind have been allowed.

Two more points are worth making. First, even if this kind of individual profiling were permissible under Rule 702, Slomowitz's opinions would still suffer from a significant Rule 403 problem. The Court already has excluded the underlying alleged family abuse due to its own relevancy and Rule 403 flaws, R. 492 at 1–2, and this would be another way to put that prejudicial evidence in front of the jury. Second, it is noteworthy that Gray has conceded (several times) during cross-examination that he tried to manipulate Kasey Paris in connection with the Mel Gonzalez relationship. That is enough fodder for the defense to argue (in closing argument), as a matter of common sense and not dressed up in expert opinion, that Gray had the ability to manipulate the interrogation. Also, some evidence of Gray's relatively high intelligence (for a 14-year-old) has been introduced as well. So the defense has common-sense arguments to deliver without the unwarranted sheen of expert evidence. The motion to exclude Slomowitz is granted.

F. John Lentini

Gray seeks to offer John Lentini, a fire scientist who opines that (1) there was no gasoline present in any of the samples tested by the Chicago Police Laboratory; and (2) the heavy petroleum distillate (known in fire-science circles as HPD) found by investigators in the plastic jug could not have been the source for the HPD found in one of the two debris samples. R. 316-1, Lentini Report at 4–5. The defense challenges Lentini's qualifications, arguing that he is unfamiliar with dynamic headspace extraction (the method that was utilized in the Chicago Police Laboratory's original testing). R. 316, Mot. Bar Lentini at 3. Also, the defense argues that his failure to perform independent scientific testing, and his reliance on incomplete documentation from Shambee's original tests renders Lentini's testimony unreliable. *Id.* at 6–8.6

⁶There is no need to address those parts of Lentini's opinions that rebutted Sandau's and Rafailovich's proposed testimony, because those two witnesses have been excluded.

Gray acknowledges that Lentini has not performed headspace extraction recently, but points out that this is because advances in science have moved the field on—but Lentini previously performed them on a daily basis. R. 325, Lentini Resp. at 2. Gray also argues that Shambee did not record specifications for values including flow rate, temperature, and pressure because he was following a standardized operating procedure optimized to detect gasoline. *Id.* at 5. Finally, Gray rejects the idea that Lentini would have had to conduct his own tests to be able to opine on other findings, especially if he believed they were designed to fail. *Id.* at 7.

Gray is correct that there is no absolute bar under Rule 702 against an expert relying on a review of another expert's report and test results without redoing the tests themselves. An expert familiar with the scientific method and reading an account of another expert's experimental methodology and results is qualified to explain to the jury the results and offer explanations of what it means based on a review of the data.

On the alleged lack of recent familiarity with dynamic headspace extraction, in the intervening decades, dynamic headspace extraction has fallen out of favor for better methodologies and technologies. So it is perfectly reasonable for Lentini to have no reason to perform that type of extraction recently. And when this methodology was in vogue, Lentini performed the extractions on a regular basis. Lentini Dep. at 41–43. The defense may cross-examine Lentini on this point, but the lack of recent experience does not disqualify Lentini's opinions under Rule 702.

Nor is the parties' disagreement on the original Shambee test conditions an obstacle to Lentini's opinions. It is reasonable to presume that Shambee applied typical conditions in performing the original extraction. It is not as if Lentini made some baseless assumptions on the test conditions and assumed that something out of the ordinary happened. Here again the defense may cross-examine Lentini on the assumptions that he made. The motion to exclude Lentini is denied.

G. Geoffrey Loftus

The defense objects to Gray's proposed eyewitness-evidence expert, Geoffrey Loftus. Loftus offers explanations on perception and memory, including what factors affect (and degrade) memory formation, how memory changes over time, why the confidence of witness is not necessarily correlated with accuracy, how memory reconstruction can affect an identification, and lineup reliability. R. 317-1. This type of

explanations on memory and eyewitness testimony are proper subjects of Rule 702 testimony. See United States v. Bartlett, 567 F.3d 901, 906 (7th Cir. 2009).

The defense first argues that Loftus' explanation of the alleged low lighting underlying Karrie Kelly's identification is based on speculation. But it is permissible for experts to rely on disputed facts—both direct-exam and cross-exam questioning is commonly designed to make clear for the jury that the expert has no personal knowledge of the particular site, so if the assumed fact is not proven by the offering party, then this aspect of the expert opinion will fall. The same goes for other factual assumptions like the volume of customers encountered by Brenda Thomas and how much attention Kelly was paying to the runner.

There is one sub-opinion that must be excluded: Loftus' opinion that the lineup identifications were most likely based on implicit or explicit police pressure. It is one thing to explain why the lineup identifications were not reliable based on factors that go to memory and to perception, or even how certain *techniques* amount to pressure (and thus render the identification unreliable). It is quite another to go on to offer a pseudo-science process-of-elimination to jump to the conclusion that the identifications indeed were based on pressure.

Lastly, the defense challenges Loftus' opinion that the three fillers in the photo arrays shown to Brenda Thomas are framed differently from Gray's photo (in that Gray's photo was more of a full-body photograph than the fillers'). The defense complains that the opinion was not in the written report. But the defense extensively questioned Loftus about the opinion during the deposition, so the non-disclosure was substantially harmless. This aspect of the opinion (though not particularly persuasive) is not excluded, and the defense of course may cross-examine Loftus not just on the topic but also on the timing of the disclosure (that is, it was not important enough for Loftus to have noticed earlier when he wrote the report).

H. Craig Miller

As previously noted, R. 489, this was the closest call of Gray's proposed expert witnesses. Craig Miller is offered to opine that (1) the interrogation procedures used on Gray increased the risk of false confession and were inconsistent with accepted police practices, including practices specifically applicable to juveniles; and (2) that the identification procedures used with Karrie Kelly and Brenda Thomas were unduly suggestive and inconsistent with accepted practices.

On Miller's qualifications to opine specifically on juvenile interrogations and the risk factors for false confessions, it is true that Miller has very little *direct* experience with *personally* interrogating juveniles. But as a deputy chief in the Dallas Police Department, and even more directly in other supervisory positions, he did supervise investigations and interrogations of juveniles. Given the extensive supervisory experience, Miller does possess the requisite specialized knowledge and experience to offer the proposed opinions. Of course the defense will have the chance to cross-examine Miller on his experience and qualifications.

The defense's other objections are not well founded. First, the differences in Texas versus Illinois practices on juvenile investigations goes to the weight, not admissibility of Miller's opinions. The jury might find the magistrate-judge difference to undermine the persuasive value of the opinion, at least in part, but the difference is not so stark to fatally exclude Miller's testimony. The same goes for the purported absence of a written juvenile-interrogation policy in Dallas. Miller may testify.

I. Gregory Yacoubian

Gray's objections to the defense's police-practices and interrogations expert, Gregory Yacoubian, specifically target what Gray believes was Yacoubian's proposed testimony on ultimate conclusions. The defense acknowledges (and says it was obvious) that Yacoubian should not testify as to ultimate conclusions, like Gray understood his *Miranda* rights. So there is no real dispute over that point. Other than those ultimate conclusions, Yacoubian may testify based on his extensive police-officer experience (around 25 years' worth), including as a detective, sergeant, and lieutenant.

J. Melissa Russano

The Court has already permitted the testimony of Gray's false-confessions expert, Melissa Russano. If ever there were a subject that is helpful to the jury, it is on the subject of false confessions, and this type of expert testimony has been permitted in other cases. *E.g.*, *Harris v. Chicago*, 2017 WL 2436316, at *6–*9 (N.D. Ill. June 5, 2017); *Kluppelberg v. Burge*, 2016 WL 6821138, at * (N.D. Ill. Sept. 16, 2016). The defense objection that there is imprecision in calculating false-confession rates is meritless, because all that Russano proposed to testify on (and did testify on) was the rates found in particular studies and databases. And the fact that some risk factors for false confessions also lead to true confessions does not undermine the studies showing that the risk factors are more prevalent in confirmed false-confession cases. Cross-examination, not exclusion of the evidence, is the way to challenge the persuasiveness of this area of social science.

The other defense objections boil down to the factual assumptions on which Russano is offering her opinion. But it was made clear to the jury that Russano (like many experts) was relying on case-specific factual *assumptions*, assumptions that Gray must separately prove. This is a standard basis for expert testimony and not a grounds for exclusion.

K. Dennis Smith

The Court has already permitted Gray's fire-investigations expert, Dennis Smith, to testify at trial, except on the use of the term "accelerant," as previously noted, R. 489. The defense's motion to exclude had primarily objected that Smith was critiquing the 1993 arson investigation based on post-1993 science. But it was clear from the summary judgment opinion and pretrial-conference discussion that the Court would instruct the jury that, as of 1993, it was not widely known that (as science now shows) that alligatoring, blistering, and charring in fact are not suggestive of the use of an accelerant. At trial, the Court so instructed the jury, and indeed Smith agreed with the proposition at trial as well. Also, separate from critiquing the 1993 investigation, Smith was entitled to explain why the apartment-building fire cause ought to be classified as undetermined by all available science, including today's knowledge. Smith's trial testimony hewed to the distinction between criticizing the original investigation based on 1993 knowledge versus whether there was an arson or not based on today's knowledge.

Otherwise, Smith offered opinions based on his extensive experience in fire investigations and, indeed, he has drafted some of the standard practices in the area. The sole exclusion was adhered to as well (the use of the term "accelerant" by Murray Shambee).

It is worth noting that, at the pretrial conference, the Court earlier contemplated allowing the defense's concession that alligatoring and blistering should not form the basis for probable cause (on the Fourth Amendment claim) to result in excluding evidence on the topic completely. But on further deliberation, including reviewing the exhibits, the Court concluded that this evidence is much too interwoven into the case and the record to simply eliminate it. So the prior docket entry noted that Gray could introduce the evidence. R. 489.

III. Conclusion

As explained in the Order, the motion to bar Sandau and Rafailovich is granted; motion to bar Nordskog's arsonist-profile opinion is granted; the motion to bar Feld is granted in part only as to legal principles; the motion to bar Slomowitz is granted; the motion to bar Lentini is denied; the motion to bar Loftus is denied except in small part (that the lineup identifications were most likely based on implicit or explicit police pressure, but he can explain how certain techniques amount to pressure); the motion to bar Miller is denied; the motion to bar Yacoubian is granted only as to ultimate conclusions; the motion to bar Russano is denied; and the motion to bar Smith is denied in large part and granted only as to the use of the term "accelerant" by Shambee.

ENTERED:

s/Edmond E. Chang Honorable Edmond E. Chang

United States District Judge

DATE: May 14, 2023